



Arguments Accompanying Pre-Appeal Brief Request for Review

Applicants note that due to the five page limit for attached sheets of the Pre-Appeal Brief Request for Review, only claims 1, 11, 13, 14, 15, and 25-27 will be discussed below.

Claims 1-9, 11, and 13-28 were rejected under 35 U.S.C. §103(a) as being unpatentable over Kaplan (US 6,690,358) in view of Salmi et al. (US 7,158,626).

Independent claims 1, 11, 15, 25, and 26 claim, *inter alia*, an incline sensor configured to detect inclination of the mobile telephone (or detecting an inclination of the mobile telephone), a processor configured to control the display to display (or controlling a display to display), to a user of the mobile telephone, a bar and an item, the position of the item within the bar representative (or provides an indication) of the inclination (or incline) of the mobile telephone, wherein the display has a first area and the bar has a second area, the second area being smaller than the first area.

Embodiments of the present invention relate to a mobile cellular telephone 10 which includes an incline sensor 16 that is arranged to detect the inclination of the mobile telephone 10. The mobile telephone 10 also includes a processor 12 which is arranged to receive signals from the incline sensor 16. When the mobile telephone 10 is placed in an inclinometer mode (i.e. a mode where the telephone acts as an instrument for enabling a user to measure the inclination of the mobile telephone) the processor 12 receives signals from the incline sensor 16 and controls a display 14 to display an item whose position is dependent upon the inclination measured by the incline sensor 16. As mentioned on page 4, lines 9-13 the mobile telephone can emulate a spirit level and thereby enable a user to measure the inclination of a surface (see page 5, lines 15-34).

In contrast, Kaplan relates to cursor control in a display of a hand-held device (column 1, lines 1 to 2). Kaplan discloses a special orientation sensor within a device which provides for movement of a screen cursor in response to changes in the spatial orientation of the device (abstract). Kaplan specifically discloses a portable digital assistant (PDA) 100 that includes a screen 110, activation buttons 12, 13, 14 and accelerometers 10, 11. The screen 110 may display a cursor 120 and pushing one or more of the buttons 12, 13, 14 may enable movement of the cursor 120 about the screen 110. The accelerometers 10, 11 provide an output signal that is

related to the angle of the accelerometers' major axis away from a horizontal plane when the PDA is in a "neutral position". The output signal of the accelerometer 10, 11 is received and processed by the processor 17 which may control the screen 110 accordingly.

The "neutral position" is described in Kaplan at column 2, lines 46-55 as "when PDA 100 is held in a position that is tilted upwards to facilitate viewing of screen 100, say 30 degrees above the horizon". If button 13 is pushed, the cursor 120 becomes responsive to the orientation of the PDA 100. As mentioned on column 4, lines 5-19, the relationship for the movement of the cursor 120 in response to tilting the PDA 100 may be one in which the cursor acts like an air bubble in a carpenter's level. If button 14 is pressed, the processor 17 may use the accelerometer 10, 11 output signal to control the panning of an image displayed on the screen 110 (as opposed to controlling the cursor).

The Examiner alleges that the "mode of operation affecting a geo-spatial user input system disclosed by Kaplan" is the same as the inclinometer mode (claimed in independent claims 1, 11, 25) and refers to column 14, lines 5-14 of Kaplan. However, in embodiments of the present invention, the inclination mode of the mobile telephone **enables the telephone to function as an inclinometer which consequently enables the user of the telephone to measure the inclination of the telephone**. As described in the description on pages 4 to 7, this feature provides an advantage in that it enables the user to measure, for example, the inclination of a surface using the mobile telephone. There is no disclosure whatsoever in Kaplan of an inclinometer mode which provides an indication to a user of the incline of a mobile phone.

Furthermore, applicants submit that in Kaplan, there is no disclosure whatsoever of a bar displayed by the display, having an area smaller than the display. Therefore, in embodiments of the present invention, it is clear that the movement of the item may be restricted to being within the bar within the display and with an area smaller than that of the display. It would be contrary to the teaching of Kaplan to restrict the movement of the cursor to within a bar since it would render the cursor unusable. In particular, the cursor would be prevented from accessing and selecting items which are positioned outside of the bar.

Furthermore, Kaplan discloses a "neutral position" of a PDA at a predetermined angle of **30 degrees above horizon** (col. 2, line 46 to col. 3, line 10). The neutral position is disclosed as

being the position at which a zero force signal is present due to each accelerometer axis being orthogonal to the Earth's gravitational force. The cursor is therefore stationary when the PDA is held to facilitate viewing of the PDA screen. Therefore Kaplan clearly relates to enabling user-friendly cursor positioning and control on a PDA display and therefore teaches away from measuring an incline. In contrast, embodiments of the present invention allow a mobile phone display to be used to measure an incline of a plane surface (i.e. with respect to a horizontal plane) that supports the mobile telephone (page 5, lines 9-13) when in an inclinometer mode.

The Examiner alleges that the cursor of Kaplan is an "indicator consisting of a movable spot of light on a visual display" and alleges that the applicants' interpretation of a cursor being associated with a computer mouse pointer indicia on a screen is inconsistent with Kaplan's teaching. Applicants' respectfully disagree with the Examiner and would like to refer the Panel to "background of the invention" section of Kaplan **which discusses conventional computer mouse devices and also outlines the objective of Kaplan as being an improvement of cursor control (i.e. conventional cursor) for single-hand controlled devices.** Therefore, the cursor of Kaplan is clearly used as a conventional computer mouse cursor and not to provide direct information to a user except for displaying a location of the cursor. Contrastingly, embodiments of the present invention use an item and a bar to directly provide measurement or correction information representing an inclination of the mobile phone. Additionally, it would not be obvious to a person skilled in the art to adapt Kaplan to include an inclinometer **mode**, since Kaplan is only concerned with the control of a cursor. Kaplan is not concerned with adding new functional modes to a hand held device.

The examiner admits that Kaplan fails to teach wherein a display has a first area and a bar has a second area, the second area is smaller than the first area, and cites Salmi for this purpose. Salmi merely discloses a communications terminal 100 for a trunked radio network such as Tetra. As illustrated in fig. 6, the terminal 100 includes a display 121 that may display a scroll bar 62. The scroll bar 62 can be used to indicate to the user of the calling terminal that more selections can be viewed than the one presently shown on the display 121 (see col. 7, lines 7-9).

Applicants submit that there is no suggestion to combine the references as the examiner is attempting to do (at least not until after reading applicants' patent application). In particular, it

would not be obvious to a person skilled in the art to combine the teachings of Kaplan and Salmi because such a combination would be against the teaching of Kaplan. As mentioned above, Kaplan is solely concerned with controlling movement of a cursor. It would not be obvious to combine the teachings of Kaplan and Salmi since placing the cursor of Kaplan in the scroll bar 62 of Salmi would result in a graphical user interface where vast areas of the display would be **inaccessible to the cursor**. The combination of Kaplan and Salmi would therefore result in a device with poor cursor control which is clearly contrary to the teaching of Kaplan.

Furthermore, even if, for the sake of argument, Kaplan and Salmi were combined as alleged by the examiner, the resulting device would not fall within the scope of the independent claims. If the cursor of Kaplan was placed in the scroll bar 62 of Salmi, the resulting device would not include the feature of the position of the item within the bar representative (or provides an indication) of the inclination (or incline) of the mobile telephone, as recited in the claims. As mentioned above, the scroll bar 62 of Salmi is used to indicate to the user of the calling terminal that more selections can be viewed than the one presently shown on the display 121. If the cursor of Kaplan was placed in the scroll bar 62 of Salmi, a change in inclination would result in a different selection being displayed on the display and the position of the cursor in the scroll bar 62 would not indicate the sense and amount of inclination, but rather the position of the displayed content within the overall content.

The Examiner alleges that Kaplan and Salmi both "are geared towards handheld devices with display" and can therefore be validly combined. The Panel is directed to MPEP §2143.01. If proposed modification **would render the prior art invention being modified unsatisfactory for its intended purpose**, then there is no suggestion or motivation to make the proposed modification. *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984). Kaplan is concerned with cursor control on a display. The Examiner has isolated the scroll bar of Salmi and introduced this feature into Kaplan such that the cursor may move within the scroll bar. Clearly, introducing the scroll bar of Salmi into Kaplan would mean that **the cursor would be restricted to movement within the scroll bar only**. This would render Kaplan unsatisfactory for its intended purpose because the cursor movement would be restricted to movement within the scroll bar and therefore a user may not, for example, move the cursor outside the scroll bar area. Furthermore, as shown in figure 6 of Salmi, a cursor 61 is separately controlled from the

scroll bar 62 and therefore the purpose of Salmi is to have a scroll bar which is **separate and independent from the cursor**. It is therefore respectfully submitted that it is incomprehensible why the Examiner has isolated the scroll bar of Salmi, which is separate from and independent to the cursor, and introduced this feature into Kaplan, and placed the cursor of Kaplan into the scroll bar. Therefore, it would not be obvious to a person skilled in the art to combine the cited prior art to arrive at embodiments of the present invention as claimed by the independent claims.

Dependent claims 13 and 14 further define using the mobile telephone for measuring or correcting an incline. The Examiner believes that these claims are disclosed at column 4, lines 5 to 14 of Kaplan. However, there is no disclosure whatsoever of these features in this section. Additionally, Kaplan discloses at column 2, lines 17 to 18 that a cursor movement may be disabled when button 13 is released and therefore **teaches away from measuring or correcting an incline**. Kaplan also teaches to use a variable gain factor to control the sensitivity of the cursor movement, **again teaching away from any type of measurement or correction** (column 4, lines 7 to 42). Therefore, claims 13 and 14 are patentable and should be allowed.

Dependent claim 27 recites, *inter alia*, "wherein movement of the item within the bar indicates rotation of the mobile cellular telephone about an x axis, the x axis being perpendicular to the plane of the display". Kaplan merely discloses controlling the cursor using tilt and rotation. Kaplan does not disclose controlling the cursor using a 'yaw' movement. The Examiner has merely referred to a z-axis labelled in figure 1 of Kaplan. This z-axis is shown to be parallel to the plane of the display and is not perpendicular to the plane of the display, as recited in dependent claim 27. Therefore, claim 27 is patentable and should be allowed.

For all of the foregoing reasons, it is respectfully submitted that all of the claims now present in the application are clearly novel and patentable over the prior art of record. Accordingly, favorable reconsideration and allowance is respectfully requested. If there are any additional charges with respect to this Response or otherwise, please charge deposit account 50-1924 for any fee deficiency.